

INFORMATION TECHNOLOGY SECURITY POLICY

POLICY 201

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External Version

Note, this copy of IT security policy has been specifically adapted for external consumption. Links or references to appendices may have been removed and other slight modifications have been made.

Purpose

The purpose of this document is to define a policy that helps ensure the security, availability and productive use of City of Seattle Information Technology systems and networks. It also helps ensure the confidentiality, integrity and availability of electronic information captured, stored, maintained, and used by the City of Seattle. It provides direction for compliance to federal and state regulations, specifies appropriate practices, and defines custodial responsibilities for records associated with City operations. This policy, as a whole or in component parts, should be used as a foundation document for all additional policies, standards, procedures, and guidelines that are developed and implemented by the City related to information systems security.

All Users of City computing services, resources and data are required to support this effort by complying with all established policies, standards, guidelines and procedures. This includes compliance with all related federal and state statutes and regulations as required.

Scope

This Policy is applicable to all users (including all employees, elected and appointed officials, contractors, vendors, volunteers and others) and departments of City Information Technology (IT) systems, networks, devices, digital information, and any other electronic processing or communications related resources or services provided through the City.

In Scope

General IT systems operated and maintained by ITD and available to all City Users

Out of Scope

IT systems operated and maintained by city departments may have their own sets of policies that supersede these policies. These policies shall apply unless other policies specifically meet or exceed them

Departmental Operations Technology (OT) systems

Policy

A. ACCEPTABLE USE

Acceptable Use

This defines the appropriate use of technology resources and data that are owned by the City of Seattle and provided for employee use. Departments may issue their own policies that augment or adopt this policy through reference, but not to supersede or contradict it.

1. City Resources are for City Business

City-owned technology resources shall serve the business needs of the City of Seattle

2. No Expectation of Privacy:

Employees must not expect privacy in the use of City communications and digital equipment. Nothing in this policy confers an individual right, or shall be construed to provide, an expectation of privacy.

3. Confidentiality:

City-held information on the constituents of the City of Seattle shall not be accessed or disclosed without a clear business need and authorization (including, but not limited to Public Disclosure Request).

4. Limited Personal Use:

City-owned technology resources may be used for personal purposes on a limited basis, providing this use results in:

- No marginal cost to the City
- No interference with work responsibilities
- No disruption to the workplace
- No storage of unlicensed, copyrighted materials on any City owned technology resources.
- No device-to-device connection of non-City-owned technology resources to City-owned technology resources. For example, charging of personal smartphones via City computer USB port is prohibited.
- No illegal activities.
- No commercial or solicitation activities.
- No use of internet or messaging tools for activities that are listed under “Specific Prohibitions and Limitations”.

5. Limited use of external e-mail services:

The limited use of an external email service is allowed, providing that the service applies anti-malware controls in a manner equivalent to that provided by the City, and such use is incidental and does not interfere with City workload, as determined by your supervisor. Attachments and embedded links should not be clicked or downloaded.

6. Media Files:

City computers, devices, and other storage locations must not be used to download or store music/audio/movies/eBooks/games files for personal use.

7. Sharing of City Data Files:

City data files may be shared as needed to support City functions and in accordance with the Information Technology Security Policy, in particular:

- 7.1 Data files classified as PUBLIC may be shared without restriction except where copyright is applicable.
- 7.2 Data files classified as SENSITIVE shall be shared only when the City has a documented business need, or to meet legal requirements, including the Washington Public Records Act pursuant to specific public disclosure requests. Restricted data files should be shared only when the integrity and obligations of the City's business operations and compliance requirements are ensured.
- 7.3 Data files classified as CONFIDENTIAL should not be shared except as required to conduct City business, or to meet legal requirements. It is specifically protected in all or in part from disclosure under the State of Washington Public Disclosure Laws.
- 7.4 Data files classified as CONFIDENTIAL REQUIRING SPECIAL HANDLING is specifically protected from disclosure by law and subject to strict handling requirements dictated by statutes, regulations, or legal agreements.
- 7.5 For additional guidance see Classification of Data Guidelines or consult department specific data classification and policies for additional restrictions where applicable.

8. Downloading to and Storage of City Records on Non-City-owned Technology Resources:

Data files with restricted classifications shall not be downloaded to, nor stored on non-City-owned technology resources. Exceptions may be granted for SENSITIVE and CONFIDENTIAL with approval from Departments or the Digital Security Governance Committee. Data classified as CONFIDENTIAL REQUIRING SPECIAL HANDLING must adhere to regulatory standards and may not be stored on non-City owned technology.

The use of removable media shall be restricted to authorized users, consistent with the Removable Media Standard.

City or public records stored on non-City-owned technology resources must be retained and produced in accordance with legal requirements, including but not limited to Washington State records retention laws and the Public Records Act.

9. Specific Prohibitions and Limitations:

City policies regarding acceptable behavior and communication will apply to use of the Internet and messaging. Specifically prohibited use includes, but is not limited to:

- 9.1 Conducting a private business;
- 9.2 Political campaigning;
- 9.3 Accessing sites which promote exclusivity, hatred, discrimination or exclusionary positions which are contrary to the City's policy of embracing cultural diversity;
- 9.4 Accessing inappropriate sites including adult content, online gambling, online gaming, and dating services;
- 9.5 Accessing sites that promote illegal activity, copyright violation, or activity that violates the City's ethical standards;

- 9.6 Using the internet to obtain or disseminate language or material which would normally be prohibited in the workplace;
- 9.7 Using encryption technology that has not been approved for use by the City;
- 9.8 Making unauthorized general message distributions to all users (everyone);
- 9.9 Installing any software that has not been approved by the City or unless approved through exception process by management in consultation with authorized IT representatives;
- 9.10 Sharing or storing unlicensed software or audio/video files;
- 9.11 Using unauthorized tools to attempt to elevate user privileges, obtain unauthorized resources, disrupt availability or make unauthorized alterations;
- 9.12 Broadcasting e-mail to large numbers of external constituents unless the list members are hidden through the use of the BCC field.
- 9.13 Using a City e-mail address when posting to public forums e.g. blogs, social media sites, wikis and discussion lists for personal use;
- 9.14 Use of online shopping and/or interferes with your workload, as determined by your supervisor;
- 9.15 Excessive use of social media sites for personal use (as described in "Limited Personal Use") that is more than incidental, and/or interferes with your workload, as determined by your supervisor;
- 9.16 Use of streaming media for other than City of Seattle business purposes during work hours;
- 9.17 Using unauthorized Peer-to-Peer Networking;
- 9.18 Using a City e-mail address as a means of notification for personal use, e.g. shopping, dating or social media sites.

- If any of the above prohibited uses is required for a legitimate business reason, it is management's responsibility to follow the Seattle IT Exception Process.

10. Use Standard Resources Only:

All digital equipment and applications must be authorized. Only software, hardware, cloud services, and communication protocols that meet the City's defined standards will be installed on, or connected to, City-owned technology resources unless an exception has been granted according to the exception process. Also do not alter to remove approved standard software from City-owned Technology Resources.

11. Additional Cost to the City:

Resources that incur a cost to the City, whether accessed via the internet, mobile device, email or other applications, must not be accessed or downloaded to any City-owned technology resources without prior approval. It is the supervisor's responsibility to assure the business need, applicability, and safety of any new resource.

12. Conflicts:

If any component of this policy conflicts with any applicable collective bargaining agreement, the collective bargaining agreement shall control. The remaining non-conflicting features of this policy shall remain in effect

Smartphone and Mobile Device Policy

13. Smartphones

The use of smartphones and mobile devices connected to City resources is based on the needs of the business and subject to departmental approval.

- 13.1 Employees will adhere to City data retention policies and schedules for all City business records that reside on City-owned or employee-owned smartphones or other mobile devices
- 13.2 Employees using a City-owned device will comply with all applicable City and departmental policies and workplace expectations while using the smartphone or mobile device.
- 13.3 City information stored on City-owned or personal smartphones or other mobile devices is a public record subject to disclosure pursuant to the provisions of the Public Records Act, RCW Chapter 42.56 (“PRA”). It is the responsibility of each City employee to retain public records, including those on City-owned or personal smartphones and mobile devices. Retention of text messages is based on the content of the message and the function it documents, not the method of transmission.

14. City Owned Devices

- 14.1 There is no expectation of privacy when using City-owned smartphones and mobile devices. The City has the right to review all mobile device records including, but not limited to, phone logs, text messages, photographs, installed apps and internet usage logs.
- 14.2 Employees should avoid using City-owned smartphones and mobile devices to send or receive personal text messages. When the City receives a public disclosure request, a discovery request in connection with litigation, or other form of request to which it is legally required to respond, records on a City-owned device must be retained until the City responds to the request. Personal records on a City-owned mobile device may potentially be disclosed in response to any request to which the City is obligated to provide records.
- 14.3 Employees should download only applications necessary to conduct City business in compliance with departmental policy and/or City policy.
- 14.4 Passwords are required on City-owned smartphones and mobile devices to connect to City resources. The password is to be managed in accordance IT policy.

15. Personal Devices

- 15.1 Employees using a personal device will comply with all applicable City and departmental policies and workplace expectations while using the smartphone or mobile device for City business.
 - City employees must use private internet connection such as home networks and avoid conducting City business over public Wi-Fi such as those found in a coffee shop or library (unless using a VPN).
 - City employees should have the most current antivirus software and security updates possible for their personal devices and should be cautious when using personal devices/computers that are shared with family members to reduce their vulnerability to a cyber-attack.
- 15.2 City staff shall not create, capture or store data that is classified as “Confidential” or “Confidential - Special Handling” on a mobile device unless there is a secure app or Mobile Device Management solution on the device that ensures the security of that data in the event that the device is lost or otherwise accessed by unauthorized parties.

- 15.3 City Staff should not store City data on a personal device, storage media or file storage service.
- 15.4 If City data is inadvertently stored in personal device (including mobile devices), records must observe record retention requirements and be retained for the applicable retention period. Employees should consult the City Records Management Program for retention requirements.
- 15.5 An employee who uses a personal mobile device for City business is required to follow this policy and to cooperate with the City and provide fullest assistance in fulfilling the City's duties and obligations under the Public Records Act.
- 15.6 Employees shall provide all records created, received, or retained within the scope of their employment on a personal mobile device to the department's PDO in response to a public records request. This includes records required by the Employee's position/function, records the Employee is directed to have by the City, or records created, received, or retained in furtherance of the City's interests. Employees may be required to sign an affidavit describing the search process used to identify public records stored on the personal mobile device and stating that all responsive records have been provided to the City.
- 15.7 If an employee-owned smartphone or mobile device that contains City records or data is lost, stolen or broken the employee must notify their immediate supervisor within one business day.
- 15.8 Employees who use personal smartphones or mobile devices to conduct City business are required to use a personal password to protect the entire device.
- 15.9 Users who use personal systems to access the City Network for work purposes must adhere to and Systems and Network requirements and must maintain up-to-date security software as follows:
 - Current Operation System (OS) and security patch level
 - Firewall enabled
 - Current version of antivirus software with an up-to-date signature
 - VPN where appropriate
- 15.10 City Data is not to be stored on personal laptops or other personal systems used to access the City Network
- 15.11 Any non-approved (including tablets or any non-approved IoT technology) may not in any way be connected to the City's authenticated network.

B. ACCESS CONTROL & ACCOUNT MANAGEMENT

Account Management

In accordance with the principle of least privilege, account types are established with specific privilege levels required to perform prescribed functions. Standard user accounts are the default user account used for all general operations not requiring elevated privileges.

16. Monitoring of User Accounts, Files, and Access

- 16.1 The City reserves the right to monitor its information systems and user activity. There is no guarantee of privacy of email, Internet access, system logs, and electronic files related to individual City computer and network accounts.
- 16.2 Inappropriate, unauthorized use or abuses of computing and network resources are subject to monitoring and investigation by authorized City staff.
- 16.3 Individuals and associated accounts under investigation are subject to having their activities on City systems monitored and recorded.
- 16.4 In the course of monitoring individuals who are improperly using these systems, or in the course of correcting system problems caused by the unauthorized use, the activities and files of authorized users may also be disclosed.
- 16.5 The City may specifically and without notice monitor the activity and accounts of individual users including files, session logs, content of communication and Internet access for adherence to the Acceptable Use Policy.
- 16.6 The City reserves the right to filter Internet access to preclude dangerous or harmful connections.
- 16.7 Evidence of criminal activity will be turned over to appropriate City and law enforcement officials.

Administrative Access to City Information Systems

Administrator (and other higher privileged) accounts are used to establish separate elevated privileges required to perform specific systems management functions.

17. Appropriate Use of Standard User Accounts

- 17.1 Standard user accounts must be used for accessing common business applications and performing daily work where elevated rights are not explicitly required.
- 17.2 Standard user accounts should not be used to perform administrator system functions.

18. Appropriate Use of Elevated Privileged Accounts

- 18.1 Appropriate use of administrator accounts includes managing business critical applications, operating administrative tools, or performing other essential business activity in which elevated rights are explicitly required.
- 18.2 Inappropriate use of administrator accounts includes internet browsing, email usage and using common business applications such as Office 365 (i.e., OneDrive, Outlook, SharePoint, PowerPoint, Word, Excel, OneNote, Team). Daily work using common business applications must be performed with standard user accounts

19. Granting Administrative Access

- 19.1 Administrative access may be granted by System Owners, Information Technology or other City management based on an established and documented business need. Granting access must follow the procedure outlined in Procedure for Granting Administrative Access to City Information Systems or Departmental specific procedures where required for regulatory compliance.
- 19.2 An administrator is associated to an individual and only that individual is authorized to use the administrator account to access systems.
- 19.3 A user with administrator access must obtain a separate ADM account and use that account for Administrator actions

20. Service Accounts

- 20.1 Service Accounts will be created in support of an application or system and are used to run a service related to the application or system.
- 20.2 Service Account names should reflect the function of the Service Account.
- 20.3 Service accounts should be configured with the least level of privilege required to run the service for the application or system.
- 20.4 Service Account passwords must be configured so they can't be used interactively.

Access Control

Access control measures required for establishing Users' access to any City computing resources shall be commensurate with the functional nature and degree of criticality of the computer systems, network resources, and data involved. See Access Control Measures for direction on how to assess and define the appropriate security measures for computing systems.

21. Account Management and Authentication

- 21.1 It is the responsibility of all System Owner/Operators and Data Custodians to ensure that their systems are properly protected, define and deploy group policies at the domain level and periodically review accounts for compliance with account management requirements.
- 21.2 Systems are required to have a technical access control mechanism(s) that deploy authentication measures appropriate for data and departmental security requirements. Authentication measures must be commensurate with the required account, data and application security (See Access Control and Authentication Guidelines)
- 21.3 All systems are required to have the capability to log basic information about User access activity, system events and errors, and access violation reports.
- 21.4 All system access accounts for Users must be based on a unique credential that establishes identity.
- 21.5 No shared accounts are allowed except where authorized under the Shared Account Standard or as an exception under the exception process. If a group or shared account is allowed by a policy exception, it must have controls providing an audit trail connecting an individual user to any action performed under the shared credential. All group or shared accounts must reset the shared password when any user leaves the group

- 21.6 Applications requiring authentication, whether hosted on premises or in a City or vendor-operated cloud platform, must integrate with the City's Single Sign On (SSO) standard for applications. All new or upgraded applications must authenticate using the City standard authentication platform.

22. Multi-factor authentication

- 22.1 Multi-factor authentication must be used to ensure positive identification of individuals with elevated privilege levels or access to sensitive resources. Examples include:
- 22.1.1 Network or database administrators
 - 22.1.2 Contractors include accessing internal resources from outside the City network
- 22.2 Multi-factor authentication may be required for additional use cases, and as further defined in the Multi-Factor Authentication Standard (STA204)

23. Provisioning

- 23.1 All Users' system access will be based on the "principle of least privilege" and the "principle of separation of duties" :
- 23.1.1 Principle of Least Privilege: An operations principle that requires access privileges for any user to be limited to only what they need to have (nothing in addition) and when they need to have it, to be able to complete their assigned duties or functions.
 - 23.1.2 Principle of Separation of Duties: An operations principle that requires that whenever practical, no one person should be responsible for completing or controlling a task, or set of tasks, from beginning to end when it involves the potential for fraud, abuse or other harm.
- 23.2 Computer applications that are developed for the system must be developed and integrated to maintain individual user accountability and audit capability.
- 23.3 Documented procedures must be in place for issuing access, access change, access termination and revoking access privileges on systems and accounts.
- 23.4 A formal process is required for deprovisioning access to ensure appropriate access is removed whenever:
- When accounts are no longer required;
 - When accounts are inactive for a defined period of time;
 - When users are terminated or transferred; or
 - When individual information system usage or need-to-know changes
- 23.5 Any vendor that requires access to City equipment must obtain written permission from departmental IT Management.
- Enable vendor accounts used for remote maintenance only when actively being used by the vendor and disable the access upon completion of vendor activity;
 - Audit vendor accounts used for remote maintenance on a periodic basis to ensure access is being disabled when not actively in use;

- Change vendor-supplied defaults (including passwords) and remove or disable unnecessary default accounts before installing a system on the network;

24. Measures

24.1 Automatic Workstation Screen Locking - All City workstations must automatically go into a password-protected screen-lock mode after fifteen (15) minutes of inactivity.

24.2 Unsuccessful logon attempts:

- Locking the account after (6) consecutive invalid logon attempts by a user; and
- Automatically locking the account for 30 minutes or until released by an administrator

24.3 Account Disablement:

- Accounts belonging to separated employees/consultants/volunteers will be terminated within 24 hours unless earlier termination is requested by the Department.
- Inactive accounts will be disabled after 90 days
- Vendor accounts will be disabled at the time of account expiration (default is at end of contract or one year from initiation).
- Note: content to be extracted to *Standard* document

Physical Security

As with logical security measures at the City, physical security measures required for protecting City computing resources shall be commensurate with the nature and degree of criticality of the computer systems, network resources, and data involved.

25. Physical Security

- 25.1 Physical access control measures must be implemented sufficient to prevent City assets from unnecessary and unauthorized access, use, misuse, vandalism, or theft (See GUI14 Physical Security Guidelines for detailed guidance).
- 25.2 Certified smoke and fire alarm and fire suppression systems must be in place for larger data centers, server rooms and telecommunication closets and vaults.
- 25.3 Environmental control measures (power supply, heating, ventilation, air conditioning, plumbing, physical location) must be in place and monitored, tested and maintained regularly.
- 25.4 Inventory Control measures must be implemented, such as asset tags or other identification markings for tracking and accounting of City assets.
- 25.5 The City must have secured off-site data/media storage and procedures.
- 25.6 Specific procedures and security education for all Users of City laptops, wireless services, and other mobile computing devices must be instituted.
- 25.7 All specific tools, systems, or procedures implemented to meet physical security requirements will be selected on the basis of its ability to meet City specifications and performance requirements and be purchased in compliance to the City's procurement policies and procedures.

Personnel Security Measures

26. Personnel Security Measures

- 26.1 When hiring employees for key technical positions, comprehensive pre-employment screening must take place.
- 26.2 All pre-employment inquiries must be conducted in full compliance with all official City and specific departmental policies and in full compliance with all related state and federal laws.
- 26.3 New employees must be informed about their responsibilities and the policies that apply.
- 26.4 All employees are required to complete yearly training on the basic tenets of this information security policy.
- 26.5 All physical and logical access to computing and network facilities and resources must be assigned with the principles of least privilege and separation of duties.
- 26.6 When terminating employees all City departments must establish processes to quickly close and remove all system and network privileges.
- 26.7 Related procedures regarding employee suspension, transfers within the city, leave of absence, long term illness or disability must also be established and maintained.

Remote Access

Remote web-based access to certain city systems, applications and data is granted to all City users for the purpose of accessing their email, files, productivity tools and business applications while conducting city business at home, working remotely or traveling (e.g. O365).

Other remote access systems may be restricted only to those employees with an express need and authorization for this type of access. Network support personnel are an example of those that may need remote control capability. Personnel that travel or fill an on-call role are an example of a need for remote access capability.

27. Authorizing and Provisioning

- 27.1 Those using remote access must be positively identified and authenticated prior to being connected to City of Seattle resources. Multi-Factor Authentication may be required depending on user role, privileges granted, or specific system or network being accessed.
- 27.2 Remote access sessions must be securely logged with enough attribution to assure identity.
- 27.3 Passwords must be encrypted during transmission.
- 27.4 Users are required to use personal firewalls on their computers when accessing the network remotely.
- 27.5 Unauthorized or self-configured remote access is prohibited.
- 27.6 City employees must exist in an authoritative directory group indicating authorization for remote access.
- 27.7 All City of Seattle employees accessing the City network remotely should use the approved methods and technology best suited for the type of work being performed, the network environment and computer resources used. The City provides the following vehicles for remote access, depending on whether the connecting endpoint (remote computer) is City-owned and managed, or personally owned:

- A City-managed system may obtain full VPN access to the network, for access to arbitrary systems within the purview of the individual obtaining the access. Virtual Private Network (VPN) should be used whenever accessing from an unknown or public network location (e.g. library or coffeehouse wi-fi).
- For personally owned systems, remote access must be through a proxied connection, which limits access to only those resources and services for which the individual has an authorized need (e.g. O365 web apps, SharePoint and accessible city applications, VPN as required).
- City documents and data shall be saved to appropriate locations:
 - ◆ OneDrive for Business
 - ◆ SharePoint
 - ◆ Shared File servers via VPN
- City documents and data shall be not saved to un authorized locations
 - ◆ Personal device or personal external hard drive (including smartphones)
 - ◆ Unapproved cloud services (e.g. Drop Box, Box, or Google Docs)
 - ◆ Removable media shared with personal device (e.g. USB/"thumb" drive)
- Devices that obtain remote access to internal network assets may be scanned for compliance with these policies on a periodic basis by Cybersecurity Operations and/or Information Assurance Team within DSR Division in Seattle IT Department.
- Devices may not extend local administrative rights to the user unless a policy exception has been granted.
- Automatic operating system and critical component updates must be enabled for remote devices.

27.8 Other than the requirement for separate approval before allowing the initiation of remote-control sessions via the VPN, the same policies regarding Acceptable-Use of City technology will apply to remote access as would apply to access originating from City of Seattle internal networks.

27.9 Firewalls must be configured to only allow designated traffic.

28. Contractor Access

Authorized users or contracted vendors must use only authorized methods for remote access to the Network and City services

28.1 Contractors must meet or exceed this policy

28.1.1 Departments granting remote access will ensure that authorized users and contracted vendors sign an Acceptable Use Agreement including a background check when required for accessing data classified as Confidential Requiring Special Handling.

28.2 Contractors accessing internal resources from outside the City network must use multi-factor authentication

29. Vendor Access

Vendors may be allowed remote access to specific servers as needed to provide support to the City of Seattle, subject to the following policies:

- 29.1 Access into the City of Seattle network will be via the standard VPN solution unless by exception.
- 29.2 The vendor must sign the City's Acceptable-Use Policy.
- 29.3 Vendors must have unique user accounts assigned to them for any system that they will be accessing. Vendors are not allowed to operate under the credentials of City of Seattle support staff, or use "shared" vendor accounts.
- 29.4 City of Seattle support staff must monitor vendor activity at all times the vendor is connected to City resources.
- 29.5 Vendor remote sessions must be terminated when not actively in use.

30. Remote Control

Refers to the capability of controlling or operating a City of Seattle workstation from another workstation, either inside of or outside of the City of Seattle network.

- 30.1 Service Desk personnel may have remote control capabilities to workstations to aid in problem solving. Service Desk personnel must obtain the approval of the workstation operator before controlling the workstation remotely.
- 30.2 The remote-control software must notify and obtain approval of the user that is currently logged in before granting access to a workstation. This ensures the end user is aware that someone else is looking at what is on the screen. This function is not required for servers as there is typically no user logged at the console.
- 30.3 Remote control sessions must be logged to the extent possible. At a minimum, connection attempts should be logged on both success and failure. Remote control logs are to be retained one (1) year.
- 30.4 Remote Control sessions must automatically disconnect when idle for 15 minutes. The Service Desk has the authority to make exceptions to extend beyond 15 minutes of idle time when there is a business justification, such as when running scripts, to support the customers of Seattle IT Department.
- 30.5 Persons controlling workstations remotely must not be allowed to blank the screen or lockout the keyboard or mouse from use by user.

C. SYSTEM AND NETWORK CONFIGURATION

Systems and Network Security

All systems and network security measures must be based on the functional nature and degree of criticality of the computer systems, network resources, and data involved.

31. Systems and Network Security

- 31.1 It is the responsibility of all System Owner/Operators to ensure that they have implemented all necessary security measures.
- 31.2 Operating systems must be maintained with the timely application of all related vendor issued patches as described in Patching below.
- 31.3 Desktop or laptop workstation computers must be deployed following the City standard configuration (see End User Hardware and Software Standard Standard).
- 31.4 Each system must maintain a baseline configuration, with settings documented, and exceptions to security controls documented. These must be maintained and monitored through the continuous monitoring strategy
- 31.5 Where appropriate, systems must have anti-virus software and maintain procedures for regular signature updates (see GUI13C Antivirus Measures).
- 31.6 Procedures must be maintained for regular backup of all data and system files necessary for recovery purposes (see GUI13D Backup, Recovery and Data Retention), with regular restoration testing of critical systems annually at a minimum.
- 31.7 All systems are required to have the capability to log basic information about User access activity, system changes, and events to enable central collection and monitoring. (see GUI13B Logging). All systems, applications, and devices must forward relevant security logs and alerts to an approved Security Information and Event Management system.
- 31.8 All systems must maintain a functioning and accurate system clock.
- 31.9 All network interconnections to non-City owned systems and all traffic controlled via a managed interface between the City and the external entity shall be explicitly authorized and documented Communications may be monitored for unauthorized or anomolous activity.
- 31.10 All in-scope computing systems and servers hosted on City IT networks must support proactive vulnerability probing and reporting (see Firewalls and Intrusion Detection Security Guideline).
- 31.11 System Owner/Operators must ensure that no function, application, or other computing process is executed on their system(s) that uses an unreasonably large amount of bandwidth on City networks.
- 31.12 USB connected, serial, or other portable devices are not allowed to be connected to City systems unless and until an exception request stating a legitimate business reason is received and accepted by Digital Security and Risk.
- 31.13 USB connected, serial, or other portable devices are inherently insecure and thus are discouraged for use as storage for City records, especially sensitive or confidential records (see above).
- 31.14 Unauthorized, non-City owned and managed network devices (i.e. firewalls, switches, routers, wireless access points) are not allowed to be connected to City systems at any time.

- 31.15 Any device containing a modem or other external connection and containing an operating system is not allowed to be connected to City systems without a written exception approval from Digital Security and Risk (DSR). Exception requests will not be granted unless these deployments adhere to strict configuration guidelines as outlined in End User Hardware and Software Standard.
- 31.16 No device may be connected to the City's network that does not conform to City standard configuration without expressed approval through an Exception Request.
- 31.17 System Owner/Operators must display security warning banners prior to allowing the access logon process to be initiated by Users (see Use of Security Warning Banner Guidelines).
- 31.18 All servers deemed critical to City business functions and/or containing confidential or restricted data must have Host Intrusion Detection/Intrusion Prevention systems installed with alerts routed to a SIEM device (Security Information and Event Management).
- 31.19 All servers deemed critical to City business functions and/or containing confidential or restricted data must have the capability to implements a set of segmentation controls that are designed to meet both operational and regulatory compliance requirements. (see Network Segmentation and Access Management in the NGDC Architecture)

32. Patch and Vulnerability Management

- 32.1 Software vulnerabilities will be limited by using secure coding practices and verified via application vulnerability scanning.
 - 32.1.1 Any new code being deployed to production should be free from all "Critical", "High" and "Medium" vulnerabilities before going live. Other items flagged as "Best Practices" will also be implemented before going live.
 - 32.1.2 Application Owners will be responsible for ensuring that all software updates and security updates are applied within a reasonable timeframe following their availability and during the specified maintenance window for the application.
 - 32.1.3 Application Owners are responsible for establishing and managing maintenance windows in coordination with vendor or internal development teams as appropriate.
- 32.2 All System Owners must institute practices that require all devices have designated security patches applied to system and application software and/or firmware. When required, users will be alerted to reboot their computers to complete security patch deployment within standard designated time frame, after which the computer will automatically reboot with appropriate notification.
- 32.3 Image files used to configure computing devices must be maintained at current patching levels and should be considered "untrusted images" until scanned for compliance.
- 32.4 System Owners must be able to provide records of their compliance with this policy within 24 hours of a request by the DSR.
- 32.5 If system or application software cannot be patched; System Owners must employ and document risk mitigating measures in order to minimize the probability of system compromise until such time as the software can be patched.
- 32.6 Decisions as to criticality will rest with the DSR in consultation with System Owners where necessary.

- 32.7 When a need for security Patches of significant severity are identified outside of normal cadence, notice will be disseminated by the DSR via email to identified contact persons for each affected System within the next patch window.
- 32.8 A contract for any new City system designed and/or deployed in collaboration with, or exclusively by, outside vendors shall include specific language clearly identifying the party to be responsible for patching and maintenance of that system and its attendant applications.
- 32.9 Vendor contracts will identify specific remedies for any damages caused by failure to maintain the system or its associated applications and will also identify the party responsible for incident response and repairs.
- 32.10 Any software installed by users with elevated rights must be regularly patched and maintained in accordance with the Patch Management Standard.
- 32.11 Virtual Patching capabilities may be leveraged as compensating controls where approved by DSR.
- 32.12 Exceptions to this policy may be granted as necessary.
- 32.13 All QA and production environment servers will be configured to meet hardening standards and updated on a monthly cadence, or one that more closely aligns to vendor release schedules, to incorporate the latest software updates and security patches. New servers in those environments will be created using only the latest configuration and patching levels to avoid the introduction of any known vulnerabilities. Server operating systems no longer receiving support packages must be upgraded or removed from production environments prior to that end of support date unless there is a system security plan with appropriate compensating controls that has been pre-approved by DSR.

33. Virus/Malware Protection

- 33.1 Anti-malware software will be purchased and installed for all LAN, application and database servers and workstations.
- 33.2 Antivirus software must be updated on a regular basis. Servers and workstations must be scanned periodically, either manually or via an automated program.
- 33.3 Servers that store, process or transmit restricted or confidential data (see Classification of Data Guidelines) in any form must be protected by a host-based intrusion detection system (HIDS).
- 33.4 System Owners must report all suspected or confirmed virus or malware incidents to the Service Hub either manually or via automated tool.
- 33.5 In the event of a serious virus outbreak, or threat to the City's network caused by malware, a computer or department may be disconnected from the network.
- 33.6 A virus outbreak or other threat to the City's network will result in the initiation of the Cyber Incident Response Plan.

34. Wireless Access

- 34.1 Wireless technology is inherently insecure. No wireless deployments are allowed unless a written business case has been received and reviewed and an exception to this policy is approved by the DSR.
- 34.2 In-scope devices with enabled wireless capability will ensure that authorized users and contracted vendors sign a Vendor Acceptable Use Agreement.

- 34.3 Departments deploying devices with enabled wireless capability for general use will ensure that an Acceptable Use Agreement is signed by the administrators of those devices.
- 34.4 System owners and/or operators must terminate and remove wireless enabled computing devices within one business day of notification that an authorized user or contracted vendors' privileges have been revoked.
- 34.5 Authorized users who access City restricted sensitive or confidential data must be authenticated through access mechanisms as outlined in the Access Controls Policy.
- 34.6 Devices must be approved and authorized before establishing a local or remote connection to the City IT network.
- 34.7 Authorized users and contracted vendors are accountable for all activities while connected via wireless enabled computing devices and will be held accountable should the access privilege be misused.
- 34.8 Wireless devices must be deployed with a software or hardware host firewall application or device.
- 34.9 Data classified as sensitive or confidential must be protected in accordance with City Procedures (see Classification of Data Guidelines).
- 34.10 All City owned and managed wireless networks connected to the City backbone will be so identified with a welcome banner as referenced in Use of Security Warning Banner Guideline.
- 34.11 Dual homing is not allowed, so wireless devices must be setup with separate profiles for wireless and wired connections.
- 34.12 Wireless devices and network must employ the same logging and monitoring capabilities as wired devices.-

35. Risk Management and Security Assessment

Information security programs must be driven by a clear and current risk management strategy. This responsibility is Citywide and must be addressed in programs which include collaboration and cooperation by all City departments, and with full executive level support.

- 35.1 A continuous risk assessment will be carried out with management from the DSR that identifies threats, vulnerabilities, and results in a formal risk assessment. The risk assessment will include a gap analysis and mitigation plan. This assessment should include an externally performed penetration test or red team exercise.
- 35.2 Department specific assessments will be completed, as appropriate, focusing on critical IT systems and services.
- 35.3 Maintain a security controls matrix and update on a regular basis, using industry best practices from Center for Internet Security (CIS) controls and NIST 800-53 controls.
- 35.4 System Security Plans shall be maintained for all systems, and approved by DSR. Whenever possible, systems will use City standard benchmarks and the City's security controls to determine as their baseline security settings and configurations. Any exceptions to these will be documented in the system security plan.
- 35.5 A plan of action and milestones (POAM) shall be maintained to track implementation of security controls to various systems, as defined in the approved system security plans and security controls matrix.
- 35.6 The City will maintain a cybersecurity risk register to be reviewed and presented to security governance groups annually, at a minimum.

- 35.7 The City will implement and maintain a continuous monitoring strategy to track risk approach, POAM accomplishment, and security controls compliance.
- 35.8 Each system must maintain a baseline configuration, with settings documented, and exceptions to security controls documented. These must be maintained and monitored through the continuous monitoring strategy.

36. Asset Lifecycle Policy

Seattle IT is committed to managing the lifecycle of its IT assets. Employees have a duty of care to protect IT assets at all time, whether they are in use, storage, movement, or in disposal.

- IT assets shall be protected against physical or financial loss whether by theft, mishandling or accidental damage either through primary prevention (e.g. physical security) or remediation (e.g. marking).
- All IT assets shall be traceable and auditable throughout the entire lifecycle.

37. Inventory of IT Assets

- 37.1 Seattle IT shall maintain an inventory of IT assets which consist of physical IT assets (e.g., system, network devices and peripherals), logical IT assets (e.g., licensed software, data stores, and, cloud computing licensing) and all components within the authorization boundary of the City's information systems.
- 37.2 Seattle IT Divisions must also identify ownership of IT assets and must collect the appropriate information for each asset which they own and/or are responsible for.
- 37.3 Asset Management will maintain a list of Seattle IT's official Inventories. DSR will have access to view the list as required for security purposes.
- 37.4 All organizations deploying or maintaining compute systems or related items shall be responsible for ensuring their operating inventories are listed in the officially recognized list of city compute inventories. DSR will be provided the inventory location and read only access.

38. Safeguarding IT Assets

- 38.1 All assets will be recorded and maintained in approved registers by the Seattle IT. To manage the registers accurately and efficiently, all employees shall adhere to the following:
- 38.2 City of Seattle users shall not remove IT assets supplied by the City from the City's premises, unless approved by exception in advance.
- 38.3 City of Seattle employees may not connect personal IT assets to the City's private network and data (Connection to provided "Guest" or "Public Access" networks is allowed).

39. Disposal of IT Assets

- 39.1 Disposal of Seattle IT assets, including the sale, transfer, donation, or sustainable disposal (recycling), must be done in adherence with all federal, state and local regulations and in accordance with data classification and handling requirements relevant to industry regulatory requirements (e.g. PCI, NERC, CJIS). Computer hardware must have all software and information securely removed prior to disposal where practicable or be destroyed through approved means.

D. DATA MANAGEMENT

Data Management

Access to City data will be made possible consistent with the classification of the data, business need, user role and privilege level.

40. Data Classification

- 40.1 Data will be classified according to its sensitivity to unauthorized exposure as defined per the Data Classification Standard. The classification level applied to specific information is based on statutory requirements, the sensitivity of the data, its criticality to the City, and its use. For classification guidelines and best practices (see Classification of Data Guidelines).
- 40.2 All data defined as highly sensitive by industry or governmental regulatory groups will be classified at the highest level (as Confidential Information Requiring Special Handling).
- 40.3 Data classified as Confidential Information Requiring Special Handling will be managed in accordance with their requirements. Separate specific policies or standards may further define specific handling requirements including specifications for handling, inventory, labeling, back-up verification, disposal, specific transmission and storage specifications.
- 40.4 Data in restricted/protected classifications must be encrypted as appropriate to its sensitivity and regulatory requirements.

41. Electronic Data and Records Management

- 41.1 All City System Owner/Operators, Data Custodians, and Users (see - Definitions), are obligated to understand the nature and proper classification of the data they generate, use, or store.
- 41.2 All City System Owner/Operators, Data Custodians, and Users, are required to properly manage and protect the confidentiality of private or sensitive electronic data they may be using, transmitting, and storing. For classification guidelines and best practices see Classification of Data Guidelines.
- 41.3 All City System Owner/Operators, Data Custodians, and Users are required to understand and comply with all records retention laws for any electronic data they may be using, transmitting, and storing.
- 41.4 NOTE: Be aware that the City Records Management Program (CRMP) maintains specific records management information and offers consultation to users and management on their retention obligations under State law.

42. Data Sharing

- 42.1 The City of Seattle facilitates information sharing with partner entities by enabling authorized Department leadership to determine whether access authorizations assigned to the sharing partner match the access restrictions on the information for particular data classification and regulatory requirements.
 - Partner may be defined at the individual, group, or organizational level.
 - Information may be defined by content, type, security category, special access requirements or restrictions.

- 42.2 The organization employs defined mechanisms, processes and documentation to assist users in making information sharing collaboration decisions.

43. Electronic Data Breach Disclosure

- 43.1 A "reportable security breach" is defined by Washington State and Federal law.
43.2 The City of Seattle will comply with all applicable laws. See Cyber Security Incident Management Plan for details of the procedure to follow if a breach is suspected.

44. Rules Specific to Electronic Communication Usage

- 44.1 Electronic communication (e-mail, IM, IRC, SMS) is a temporary medium and, therefore, inappropriate for substantive policy messages
44.2 Electronic communications that contain substantive policy messages must be archived per email management rules and guidelines in appropriate retention folders.
44.3 Individual users may use approved methods for screening their e-mail to screen unwanted e-mail from, or to automate filing of, their individual accounts.
44.4 Electronic communications sent to members of the public must be consistent with the City's published Privacy Policy and this Information Technology Security Policy, including ensuring:
- The intended recipient specifically request to receive the communication from the City
 - Ensuring the proper protection of personally identifiable information (i.e., PII such as a person's e-mail address)
- 44.5 City departments and vendors acting on behalf of the City will not send unsolicited emails to constituents or City employees over the public Internet that ask them to reply with confidential information or that that ask them to click on embedded links to City web self-service transactions that require entry of confidential information.
44.6 Any City department providing public Internet self-service transactions that collect confidential information is required to put a notice of the policy and warnings of prevalent spoofing and phishing methods; or a link to such a notice, on web pages that describe or contain the self-service transactions.
44.7 Any City department that provides public Internet self-service transactions that collect confidential information shall periodically provide notices of City policies and warnings of prevalent spoofing and phishing methods in regular constituent correspondence.
44.8 Any outgoing messages which do not reflect the official position of the City of Seattle or the user's department must include the following disclaimer: "The opinions expressed here are my own and do not necessarily represent those of the City of Seattle."
44.9 All general distribution messages must contain the name of the approving authority (departmental e-mail administrator or designee) and the date of approval. All requests for citywide broadcasting must be sent to the email Administrator e-mail account.
44.10 Departments must implement department level guidance, where appropriate, regarding the departmental use of electronic communications.
44.11 Each department shall identify a Departmental e-mail administrator who will enforce and monitor this policy.

- 44.12 Only City standard applications may be used for any type of electronic communications, including e-mail and Instant Messaging (IM) unless a business need has been documented and an exception granted by Seattle IT Department.
- 44.13 Standard configurations must be conformed to for all electronic communications systems consistent with the Bulk Email and SMS Communication Standard.
- 44.14 Instant Message systems specifically are not allowed to accept inbound attachments or links and must only use the user's seattle.gov email address as an identifier.
- 44.15 All Users are required to understand and comply with all records retention laws for any electronic communications they transmit, store or disseminate.

Compliance

Measurement

Adherence to these provisions will be periodically assessed by leadership as well as through audits conducted in specific focus areas.

Exceptions

Exceptions must be approved in advance through the Seattle IT Exception Process.

Non-compliance

Enforcement of this policy will be led by the Chief Technology Officer (CTO) and may be imposed by individual division directors. Non-compliance may result in disciplinary action, restriction of access, or more severe penalties up to and including termination of employment or vendor contract.

Related Standards and Policies

- ITSP X – Appendix: Related Documents, Roles, Definitions

Authority

Seattle Municipal Code 3.23.030 (section C & D) assigns responsibility for the administration of the development of policies and standards for governing the acquisition, management, and disposition of information technology resources and the management, maintenance and operation of City information technology resources to the Chief Technology Officer

Document Control

This policy shall be effective on 12/31/2019 and shall be reviewed at least annually.

Version	Content	Contributors	Approval Date
V1.1	Final	Approver: <ul style="list-style-type: none"> - Chief Information Security Officer - Chief Technology Officer 	5/26/2020